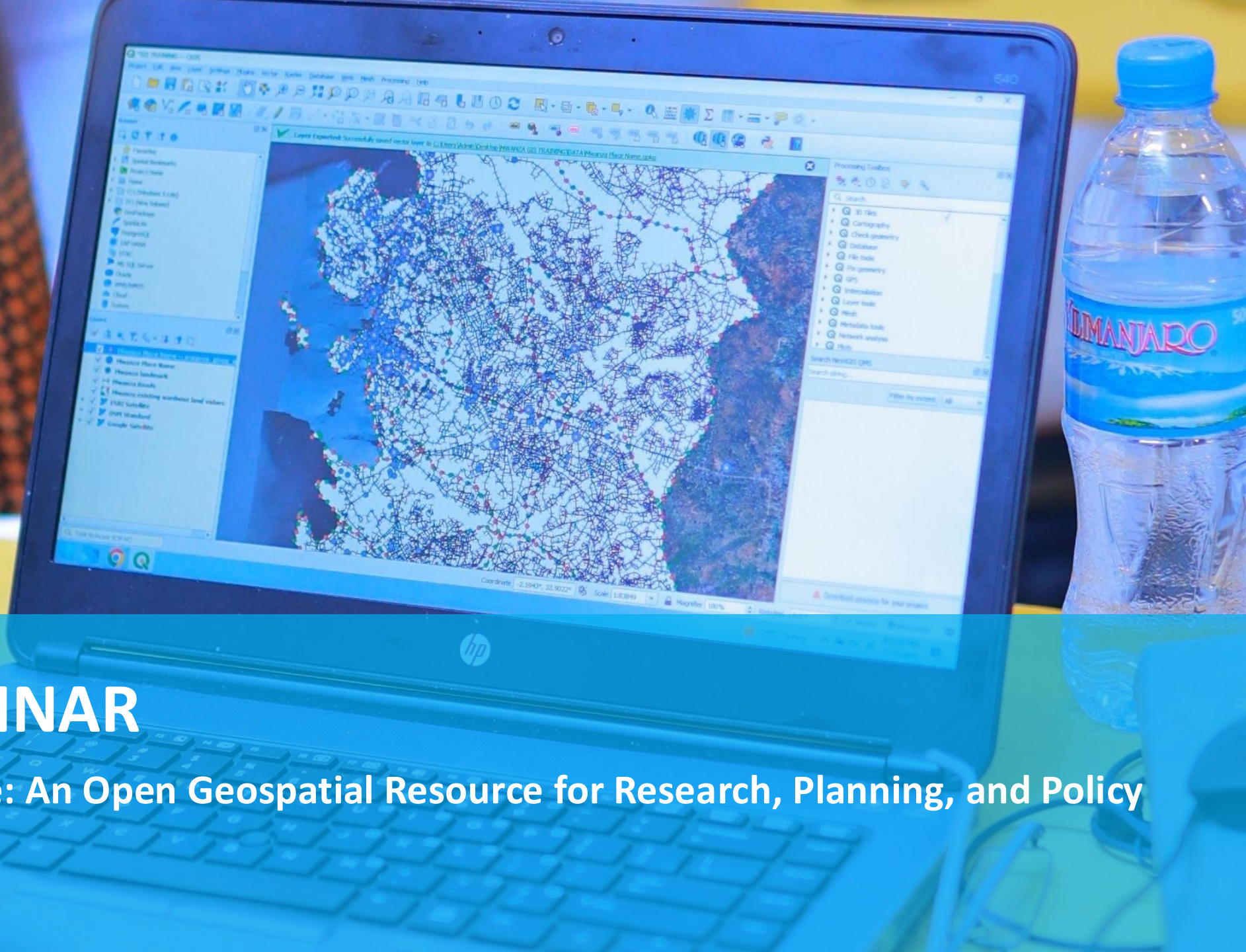




Resilience
Academy



ONLINE WEBINAR

Climate Risk Database: An Open Geospatial Resource for Research, Planning, and Policy

Tuesday, 26 May 2026

10.00am



**Resilience
Academy**



**UNIVERSITY
OF TURKU**

Online Webinar

The Climate Risk Database

An open geospatial resource for research, planning, and policy

26 MAY 2026

Msilikale Msilanga

msilikale.msilanga@utu.fi

resilienceacademy.org | crd.resilienceacademy.ac.tz



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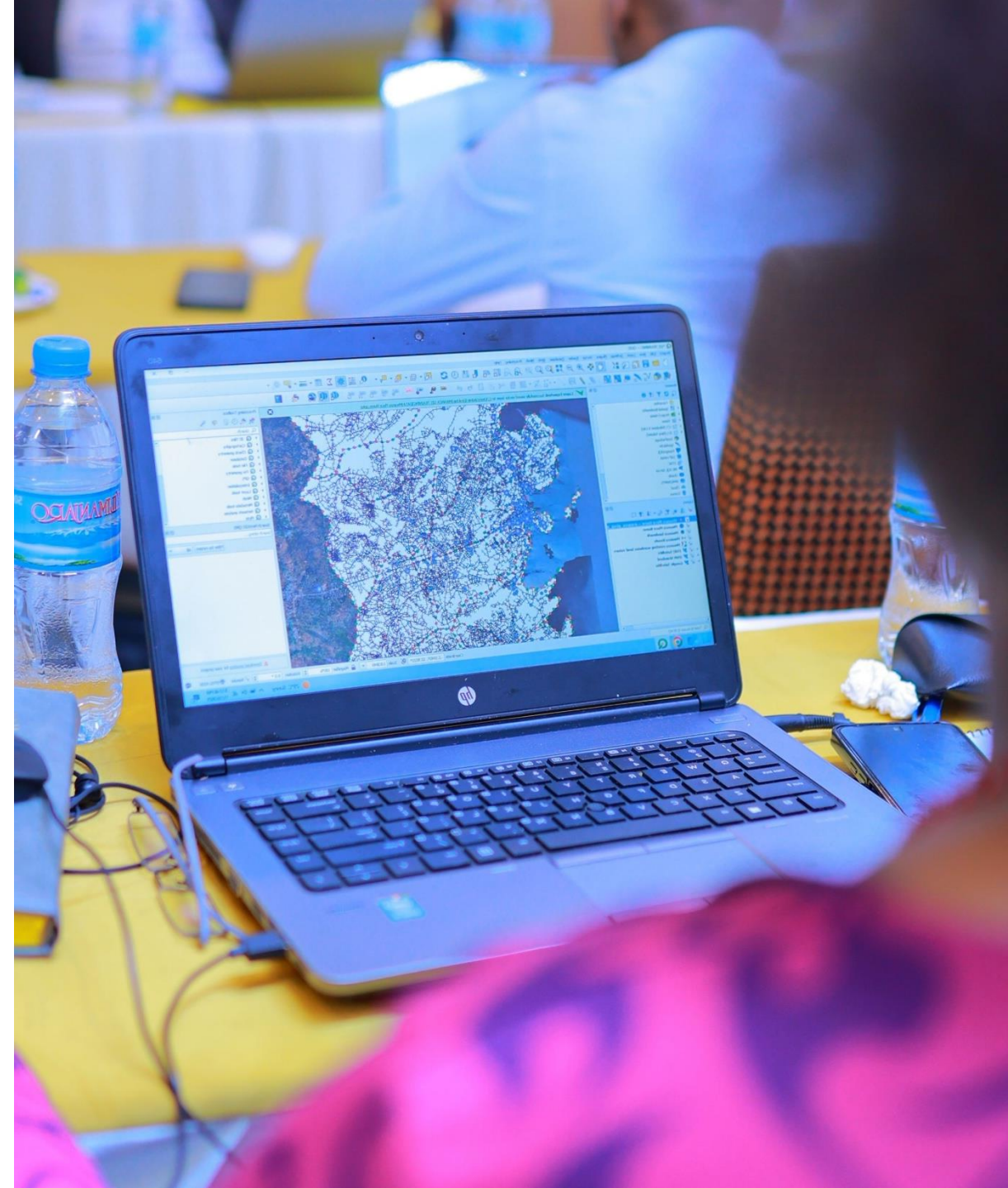
Before we begin

Ask questions anytime

Use the chat panel and I will answer at the end of the section.

Recording

The session is recorded and shared afterwards with slides and links.





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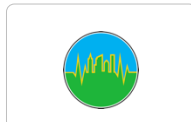
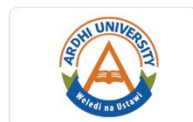
Resilience Academy

<https://resilienceacademy.org>

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 Resilience Academy



More





DIGITAL GEOSPATIAL DATA PLATFORMS

Open access to digital data for
learning, research, innovations
and decision-making



ONLINE LEARNING RESOURCES

Hands-on training
and digital skills
integrated into
universities' learning
services

RESILIENCE ACADEMY SERVICES



DATA CO-PRODUCTION AND STUDENT ENGAGEMENT

Students, communities,
industry collecting, validating
and refining digital data



RESEARCH AND INNOVATION – LIVING LABS

Novel data, tools and
solutions through
research and
innovation

Webinar series

1



Resilience Academy

ONLINE WEBINAR

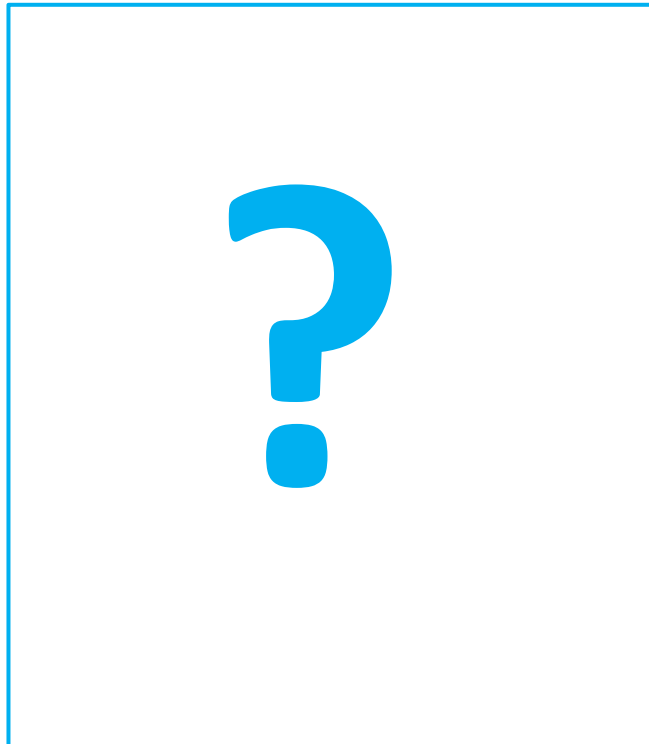
Climate Risk Database: An Open Geospatial Resource for Research, Planning, and Policy

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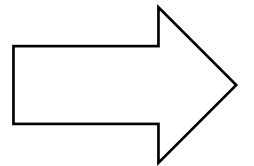
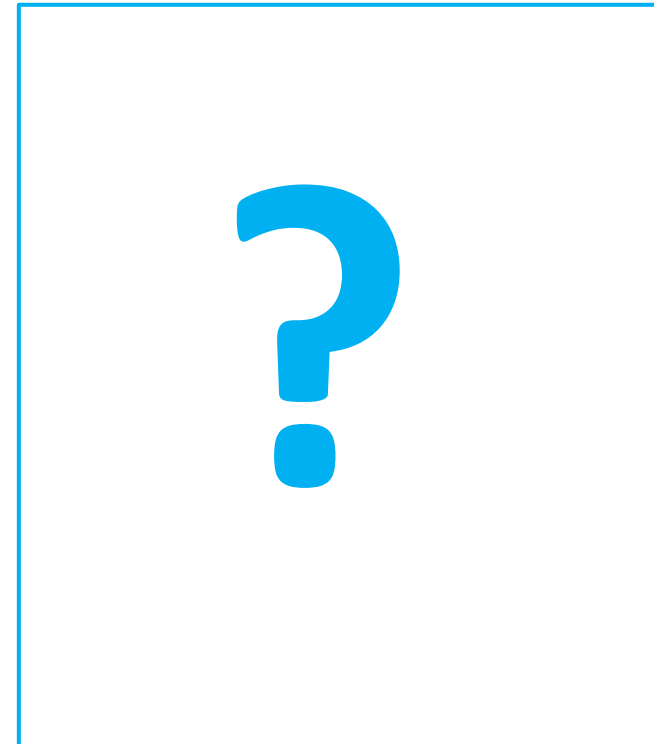
REGISTER NOW

<https://eve.utu.fi/event/270>

2

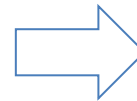


3



The Goal of this webinar

What is Climate Risk Database
(Short presentation)



How to use it
(Short Demo)

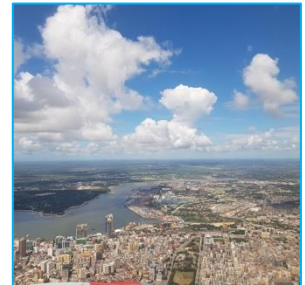


Context



Cities are under climate stress

- Recurrent urban flooding affecting hundreds of thousands annually e.g. Dar es Salaam
- Hillside erosion and informal-settlement risk e.g. Mwanza
- Coastal erosion reshaping the shoreline e.g. Zanzibar
- Rapid urbanization outpacing planning capacity
- Drought, food security, and water-availability shifts especially rural areas



The data problem

Good decisions need good data, but the data is usually broken

Fragmented

Data are not harmonized: universities, ministries, NGOs each hold pieces.

Out of date

Maps and statistics from five or ten years ago, but cities change yearly.

Hard to find

No catalogue means each project starts by hunting for what already exists.

Expensive to recreate

Teams collect the same data again because they can't reuse what exists.

Hard to cite

Even when shared, attribution is informal; data producers go uncredited.

Stuck in formats

PDFs and screenshots, not analysis-ready spatial layers.

Three words, each carrying weight

Geospatial

Data tied to specific locations like coordinates, boundaries, networks. Not just numbers in a spreadsheet but numbers ON a map.

Resource

A shared common good. Built once, used many times, by many people, for many purposes. The opposite of a one-off study.

Open

Public access, public licence, public catalogue. Anyone can find, view, download, and reuse with attribution.



HOW DO WE ENABLE

The three lenses share one foundation

Research informs planning. Planning informs policy. Policy frames the next research.

A shared open data foundation makes all three loops shorter and faster.



RESEARCH

Investigates

Reproducible studies
on hazard and vulnerability



PLANNING

Applies

City masterplans, infrastructure,
risk-informed decisions



POLICY

Decides

National strategy, investment,
monitoring of progress



**Resilience
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Introduction to **Climate Risk Database**

Geospatial database for data access and data sharing

<https://crd.resilienceacademy.ac.tz/>

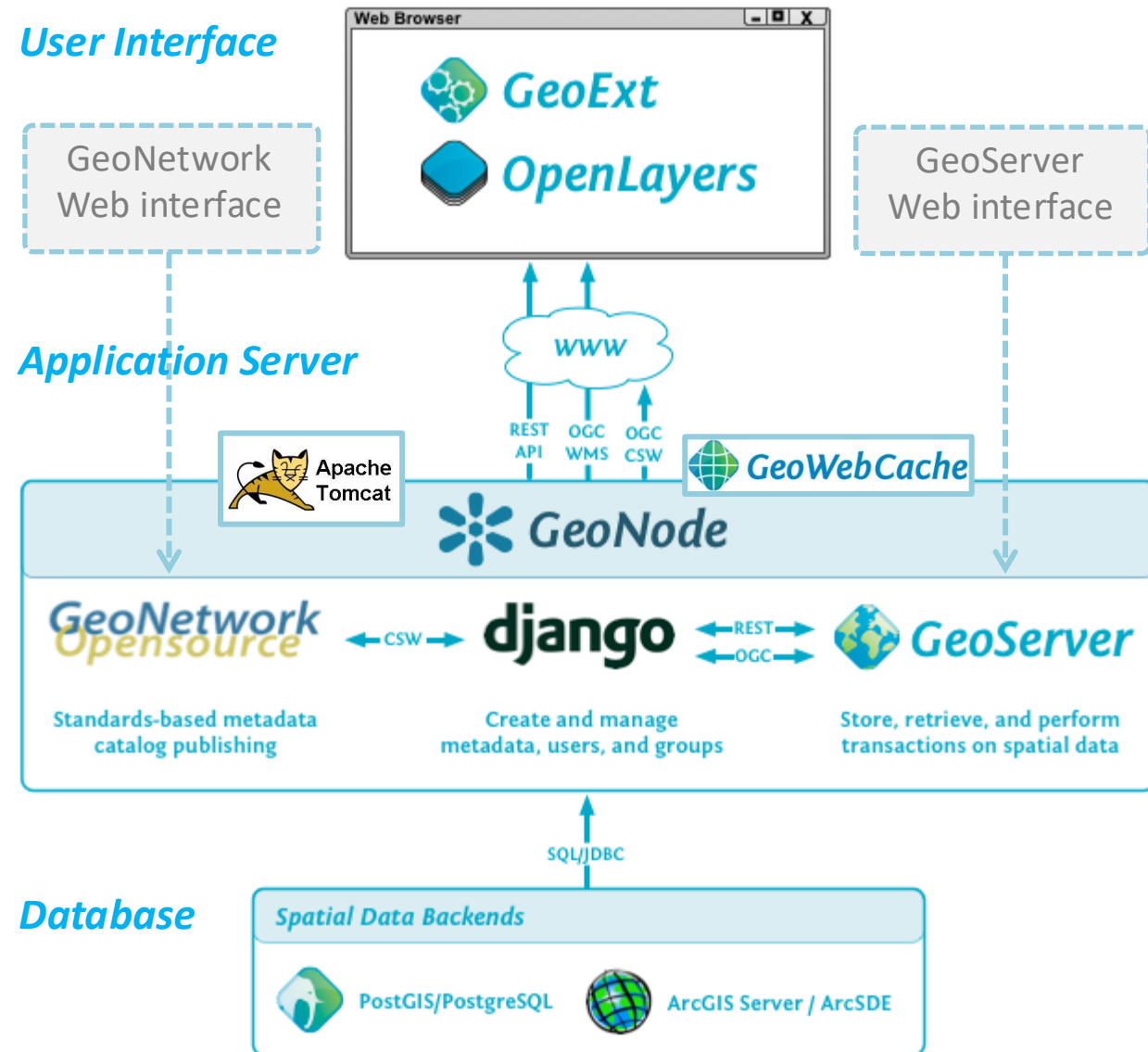


What is it?

CRD is made with **Geonode**

Geonode is a **geospatial** content management system, a platform for the **management** and **publication** of **geospatial data**.

It is a web framework based made from a combination of open-source software to allow **non-specialized** users to **upload, describe, share** their geospatial data and create **interactive maps**

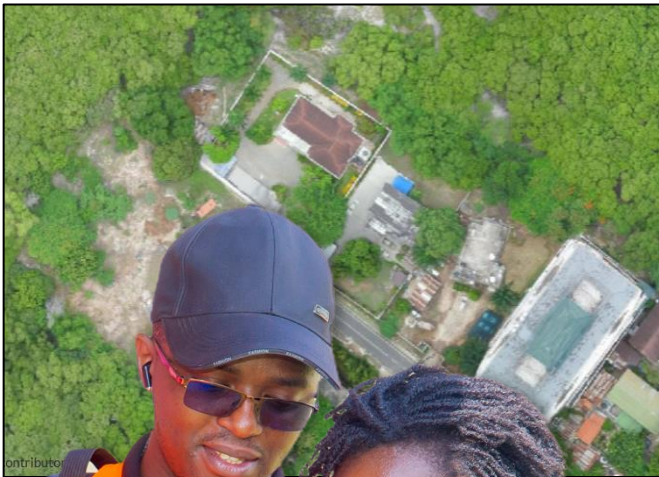


Storing and Accessing Geospatial Data

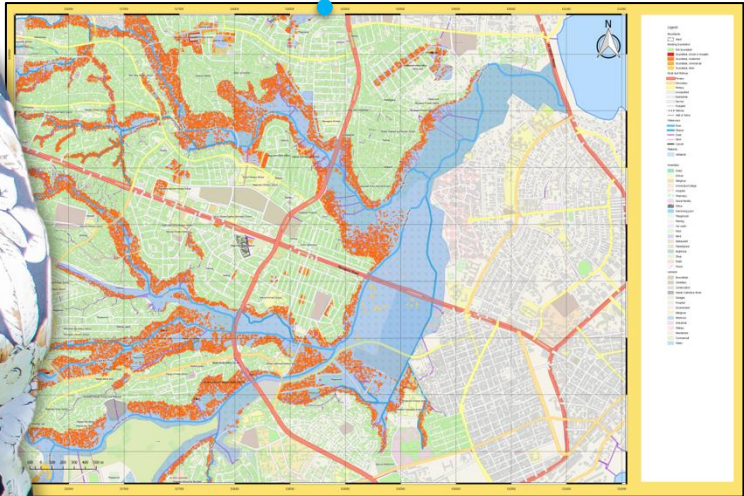
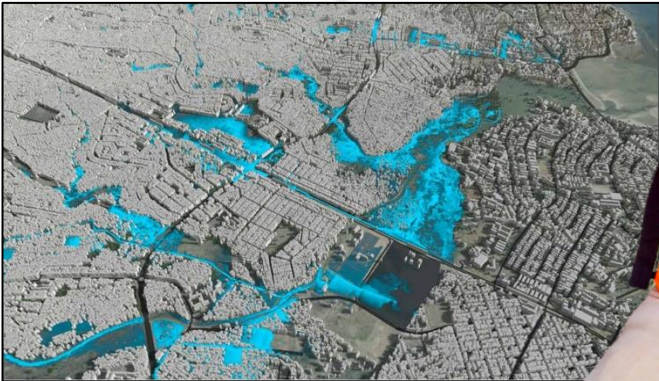
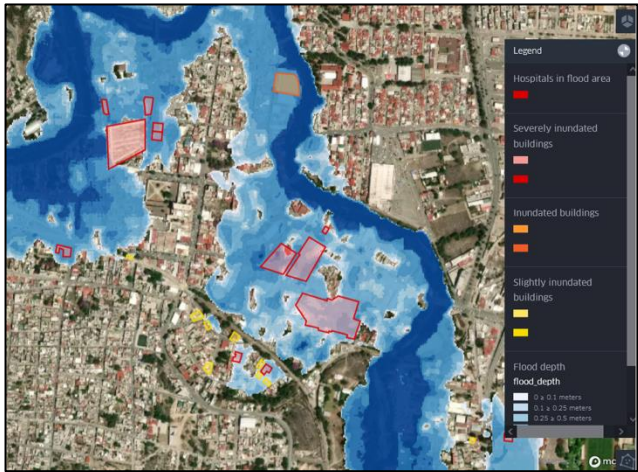
Vector Datasets



Raster Datasets



Data analysis & use





Developing Training Materials

- A central place where geospatial data is used to develop standardized, high-quality training materials and updated based on real cases.
- It is a foundation for creating:
 - Practical exercises
 - field mapping data collections training
 - Case studies training materials related to flood risk, urban planning, and DRR
 - Step-by-step practical guides
- Using CRD datasets, step by step guides in the real-world training programs that help students and government officials practice decision-making using authentic spatial information.

Teaching and Capacity Building

- Based on the need, training has been conducted to Universities and institutions across Tanzania to focus on the **use of geospatial data, data access** as well as **developing similar platforms**.
- CRD provides a **live learning environment**, allowing students and alumni to explore real **flood-risk layers, infrastructure datasets**, and **community-mapped data**.
- It strengthens **geospatial education**, helping students develop **practical skills** in GIS, mapping, risk assessment, and spatial analysis that are directly relevant to government and industry needs.



Collecting litter data using mobile phones



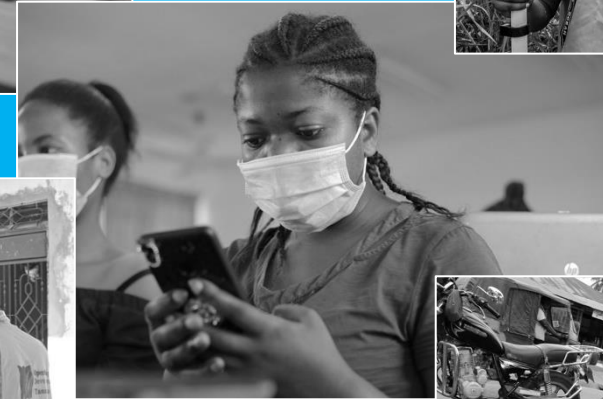
Collecting tree data using tree canopy digitization method



Using Mobile phone for collecting flood data



Weather related Data collection



Drainage mapping using local tools

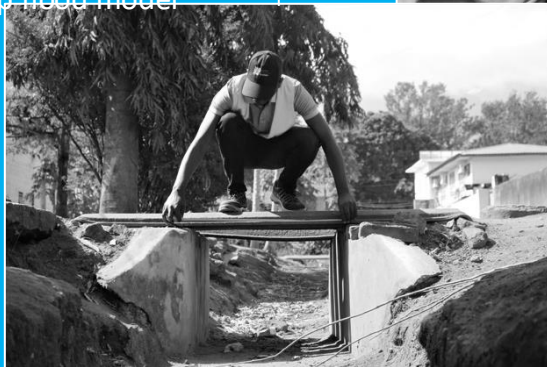


Community mapping to identify solid waste challenges

Digitizing building to detect changes due to urbanisations



Mapping of drainage systems in order to develop flood model



It has been growing over the past over five years.

290

Datasets

vector + raster + tabular

41

Maps

thematic compositions

700+

Users

registered contributors

crd.resilienceacademy.ac.tz — open, free, no GIS background required.



Data management protocol

– resources in the CRD

General resources:

[CRD Data Management Protocol](#)

Resources for data providers:

[Data quality requirements and standards](#)

[Metadata instruction](#)

[Attribute metadata instruction](#)

Resources for CRD Data managers:

[Quality control checklist](#)

Resources for data users:

[Instruction: Downloading layers from CRD](#)

[Instruction: Opening layers in QGIS via WFS/WMS](#)

Documents:

41

<https://crd.resilienceacademy.ac.tz/catalogue/#/documents>

pdf

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 **Instruction: Downloading layers from CRD**

This document provides a quick guide to downloading layers from the Climate Risk Database.

9 Mar 2021 0 0 0

pdf

ADMINISTRATION
REGISTERED MEMBERS

 **Data quality requirements and standards**

Data quality requirements and standards of the Climate Risk Database for data producers. This document contains the data quality requirements and a data quality standard

Filter

287 Resources found

Mwanza existing wardwise lan...
Existing Ward Wise Land Values dataset c...

Abdillah Khamis

Mwanza Proposed Drainage C...
Proposed Drainage Catchment dataset co...

Asmahoney

Mwanza Proposed Sewerage T...
Proposed Sewerage Transfer Station datas...

Rusham

Mwanza Place Name
Place Name dataset contains spatial data ...

Ahlam

Mwanza existing waste water t...
...

Msilika Msilanga

Mwanza proposed Planning Z...
Proposed Planning Zone Boundaries data...

FRANK GODFREY

Mwanza proposed Drainage C...
Proposed Drainage Channel dataset conta...

ABDALLA ABDALLA

Mwanza existing landuse plan
Existing Landuse Plan dataset contains sp...

khawilhamza0312@gmail.co...

The screenshot displays the Resilience Academy map interface. At the top, there is a search bar with the text "Search". Below the search bar, there are navigation links: "All resources", "Resource", "View", and "Download". A legend is visible on the left side, titled "Legend", with a checked box for "Mwanza existing wardwise land values". The legend lists various wards and their corresponding colors: Bugogwa (dark red), Buhongwa (light orange), Buswelu (orange), Butimba (light orange), Igogo (orange), Ilemela (light orange), Isamilo (light orange), Kirumba (orange), Kitangiri (orange), Mahina (orange), Mbugani (orange), Mikuyuni (orange), Mirongo (orange), Mikolani (orange), Nyakato (orange), Nyamagana (orange), Nyamatoro (orange), Pamba (orange), Pasiansi (orange), Sangabuye (orange), and Name field (blue). The map shows the Mwanza region with labels for various wards and districts. The map is color-coded according to the legend. The map includes a search bar at the top right with the text "Search by location name". The map also includes a scale bar at the bottom right with the text "Scale: 1:144448".



pdf

EDUCATION

 THE WORLD BANK

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pdf

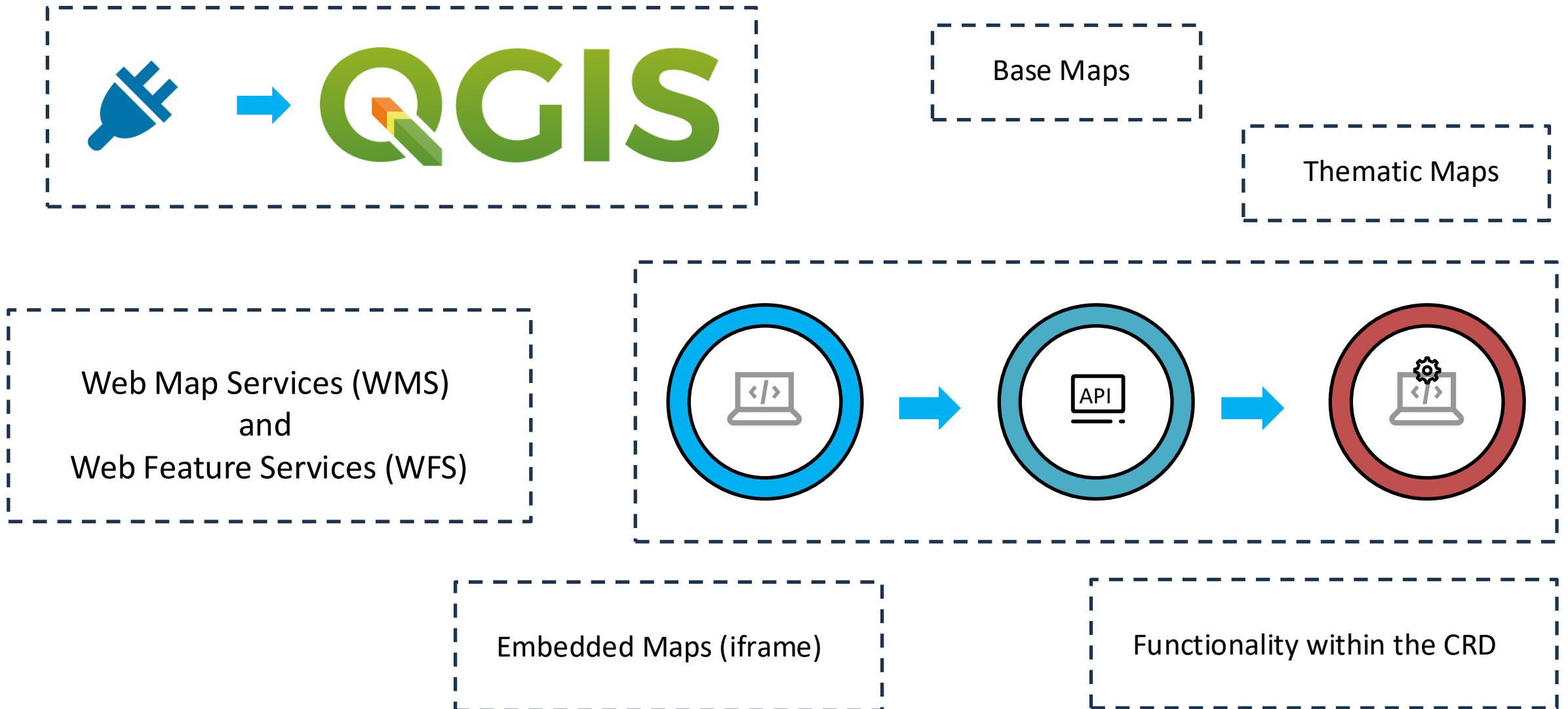
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CRD Connections



DEMO



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Thank you

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 Resilience Academy

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